

any further north than lat. 67°. Siberian birds, like those of North Europe, are somewhat darker brown above and purer white below than our Sand-Martin.

[To be continued.]

II.—*Remarks on Messrs. Blakiston and Pryer's Catalogue of the Birds of Japan.* By HENRY SEEBOHM.

(Plate I.)

THROUGH the kindness of the Editors of 'The Ibis' two small collections of birds from Japan have been placed in my hands for examination. The first collection contains 38 skins, sent by Mr. Blakiston from Hakodate for identification, to which Mr. Pryer has added 12 skins at Yokohama.

The second collection contains 64 skins, and is the result of a visit paid by Mr. Heywood Jones to the village of Shimbashiri, about 2000 feet above the level of the sea, on the volcanic mountain of Fusi-yama, near Yokohama.

The numbers and the names in the subjoined remarks are those used in the 'Catalogue of the Birds of Japan,' by Messrs. Blakiston and Pryer, published in 'The Ibis' of last year (pp. 209-250).

The birds of Japan possess a special interest to the British ornithologist. These islands occupy a somewhat analogous position on the east of the mainland of the Palæarctic region to our own islands on the west of the same great zoological district. Similar facts of geographical situation appear to have produced similar results in the two groups of islands, namely the presence of insular forms differing too slightly from the continental types to admit them to specific distinction. In order that these interesting facts should not be lost sight of, I have been obliged to admit the use of sub-specific names. It is the boast of British ornithologists that their system of nomenclature is binomial. When Linnæus substituted a word instead of a sentence to designate a species, he made an immense stride towards simplicity of nomenclature. The practice of Brisson and the earlier ornitholo-

gists, if it aimed at scientific accuracy, failed in consequence of the multiplicity of facts with which it had to deal. There seems, however, to be a tendency at the present time to carry the idea of a binomial nomenclature to a pedantic extreme. It is a common practice amongst ornithologists to quote specific names without authorities, under the cover of adhering to a strictly binomial nomenclature. In nine cases out of ten no harm is done by omitting the authority; but in the tenth case it leaves the precise species intended to be discriminated open to doubt. Exactness is the foundation of all scientific research; and the moment any doubt attaches to the meaning of a term, that moment such term ceases to be scientific. The fact that the same specific term has been applied by different ornithologists to different species, makes the addition of the authority to the specific name in many cases a necessity,—an unwelcome necessity, no doubt, to the binomial nomenclator, but not the less an absolute necessity to the truly scientific student. It would be well if the complication stopped here. Unfortunately, in too many instances, a difference of opinion exists amongst eminent ornithologists as to which species were intended to be discriminated by certain terms made use of by some writers. For example, *Saxicola stapazina* is a name intended to discriminate a certain species of Chat. *Saxicola stapazina* (Linn.) professes to restrict that name to the species of Chat to which Linnæus gave the name of *Motacilla stapazina*; but since the publication of Dresser's 'Birds of Europe' the title *Saxicola stapazina* (Linn.) ceases to have a definite meaning, and the reader must always be in doubt as to whether a bird so described be the *Saxicola stapazina* of Linnæus *apud* Latham, Vieillot, Temminck, and a host of other authors, or the *Saxicola stapazina* of Linnæus *apud* Dresser, two totally distinct birds. At all costs scientific accuracy must be preserved; and I see no possible alternative but to complicate our ornithological nomenclature still further by calling the Black-eared Chat *Saxicola stapazina* (Linn.) *et* Dresser.

It would be well for the simplicity of ornithological nomenclature if its complications could even stop here. From

the days of Linnæus to those of Wallace and Darwin most ornithologists were agreed that species were divided by a hard and fast line, and that the difficulty which the student had to surmount was the discovery of the lines of demarcation which nature herself had drawn between the various specially created species. Now that most scientific ornithologists have adopted the theory that these hard and fast lines seldom exist in nature, that species were not specially created but were gradually developed according to certain more or less known fixed laws, and that consequently there must be at any one period of the world's history a large number of species in process of differentiation, our difficulties are largely increased. The question naturally arises, What is a species? We must either draw an artificially hard and fast line where nature has drawn none, or we must accept nature as she is, and make the best of the complications which necessarily arise in our nomenclature in attempting to harmonize it with facts which we cannot, as scientific students, ignore. Hence it appears to me to be absolutely necessary for modern ornithologists to recognize the existence of *subspecies*—that is, species in the process of differentiation, incipient species, where the intermediate forms have not yet died out, but where a series gradually leading from one extreme to the other may be obtained. I fully recognize the danger of such a practice. It is easy to imagine the abuses of which it is capable. Inexperienced ornithologists will be tempted to think that differences of age, sex, and season, to say nothing of accidental individual variations, are intermediate forms worthy of the rank of a subspecies; and our nomenclature may run the risk of being still more flooded with names as injurious as the useless synonyms of the elder Brehm. I am, however, of the opinion that these difficulties will have, sooner or later, to be faced. It seems to me that the scientific ornithologist cannot afford any longer to ignore the existence of subspecies in nature, or to attempt to make ornithological nomenclature simpler than the facts of nature which it is intended to discriminate.

Another point to which I wish to call the attention of ornithologists is the recognition of *subgenera*. The non-

recognition of subgenera is causing such a multiplication of genera that ordinary memories are unable to cope with the difficulties of modern nomenclature. Suborders and subfamilies are almost universally recognized; but it is feared by some that the adoption of subgeneric names is a virtual violation of the system of binomial nomenclature. It must constantly be borne in mind that genera are as artificial as species. There is no hard and fast line between different genera except in those instances where the intermediate species have died out. The divergence of opinion as to the value of specific differences is small compared with that which we find when generic characters are the question in dispute. To a very large extent the subdivision of genera is a matter of convenience. Very large genera are unwieldy; and the temptation to restrict them for the sake of simplifying the identification of skins is very great. This process of simplification might be accomplished by means of subgenera having as accurate a definition as the circumstances will admit. These subgenera would form no part of the name of the bird, which would remain binomial. They would not be quoted in designating a species any more than the name of the family or subfamily. The object of introducing subgenera is to facilitate the identification of species and to stop, if possible, the unnecessary multiplication of genera.

I have endeavoured to carry out these views in the following attempt to correct the nomenclature, as well as to discriminate the species of the birds hitherto found in Japan.

2. MORMON CIRRHATUM (Gm.).

The skin sent (No. 1883) is correctly identified.

3. PHALERIS MYSTACEA, Pall.

The two skins sent by Mr. Whitely were identified by Swinhoe (Ibis, 1867, p. 209) as *P. cristatella* (Pall.). Their identification was doubtless correct, the length of wing, $5\frac{1}{2}$ in., being too large for the other species.

14. PODICEPS CORNUTUS, Gm.

From his description of the bird (Ibis, 1875, p. 456) Swinhoe evidently meant to identify the Japanese bird with our British Eared Grebe, *Podiceps nigricollis*, Sund.

16. COLYMBUS ADAMSI, G. R. Gray.

The skin sent (No. 1349) is the Black-throated Diver, *C. arcticus*, Linn. There is, however, no reason to suppose that Swinhoe was wrong in his identification of *C. adamsi* (Ibis, 1877, p. 146). The latter bird is a form of *C. glacialis*, with a white bill, found in Siberia &c., and probably entitled to specific rank.

23. ANSER ERYTHROPUS, Linn.?

In the Swinhoe collection is a skin (No. 2007), a female, dated "Tokio market, Jan. 1876," which is unquestionably *Anser erythropus*. The wing from the carpal joint measures $15\frac{1}{2}$ in. Two females of *A. erythropus*, from the Yen-e-say, measure respectively $13\frac{1}{4}$ and $13\frac{3}{4}$. These measurements are made with a tape across the upper surface of the wing.

29. ANAS BOSCHAS, L.

In Swinhoe's collection are two skins of the Mallard from Hakodate, (No. 1190) a male and (No. 1717) a female.

35. DAFILA ACUTA (L.).

In Swinhoe's collection are two skins from Awomori, (No. 1183) a male and (No. 1185) a female.

36. QUERQUEDULA CRECCA (L.).

In Swinhoe's collection are two skins from Yesso, (No. 1444) a male and (No. 1719) a female.

39. QUERQUEDULA FORMOSA (Georgi).

In Swinhoe's collection are two skins, (No. 1180) a male from Anomori and (No. 1981) a female from Yeddo.

43. FULIGULA CRISTATA (L.).

The skin sent (No. 2266) is a male, in full breeding-plumage, of the Tufted Duck, *Fuligula cristata* (Leach).

45. FULIGULA NYROCA (Gm.).

The skin sent (No. 45), from the Yokohama market, appears to be correctly identified. It is an immature male of *Nyroca ferruginea* (Gm.).

47. CLANGULA HISTRIONICA (L.).

In Swinhoe's collection are two skins, (No. 1449) an im-

mature male from Hakodate and (No. 1452) a female from South Yesso.

48. *CLANGULA GLAUCION* (L.).

In Swinhoe's collection are two skins, (No. 1028) a male and (No. 1448) a female, both from Hakodate.

49. *HARELDA GLACIALIS* (L.).

In Swinhoe's collection is the skin of a female Long-tailed Duck (No. 1025) from Hakodate.

52. *ÆDEMA AMERICANA*, Rich.

The skin sent (No. 2152), from Hakodate, is that of the American form of the Black Scoter, *Ædemia americana* (Swains.), with the entire protuberance at the base of the upper mandible yellow.

53. *MERGELLUS ALBELLUS* (L.).

The skin sent (No. 52), from the Yokohama market, is a female Smew, *Mergus albellus*, Linn.

62. *STERNA*, sp. inc.

The "wholly white" Tern referred to may be an albino, or possibly *Gygis candida* (Gmel.), though that species has not hitherto been recorded from any locality so far north as Japan.

63. *STERNA*, sp. inc.

The skin sent (No. 2306) from Eturup, one of the Kurile Islands, has been identified by Mr. Howard Saunders as *Sterna longipennis*, Nordm. In Lord Tweeddale's collection there is a skin of this species from Yesso (P. Z. S. 1876, p. 650).

64. *LARUS CRASSIROSTRIS*, Vieill.

This Gull was originally described from Japan.

65. *LARUS GLAUCUS*, L.

Mr. Howard Saunders in his paper on the Larinæ, in the P. Z. S., mentions having identified skins of *L. glaucus*, Fabr., obtained by Capt. Blakiston at Hakodate.

66. *LARUS GLAUCESCENS*, Brandt.

Mr. Howard Saunders informs me that he has identified

skins of *L. glaucescens*, Licht., obtained by Capt. Blakiston at Hakodate.

67. *LARUS OCCIDENTALIS*, Aud.

Mr. Howard Saunders informs me that the skins in Swinhoe's collection from Japan, labelled *L. occidentalis*, were certainly not that species, but were the Mediterranean Herring-Gull, *L. cachinnans*, Pall.

L. affinis, Reinh., has not yet been recorded from Japan; but there cannot be much doubt that it passes the coasts of the Japanese islands on migration, since the Museum of St. Petersburg possesses skins of this species collected both in spring and autumn by Wosnessensky at Ayan on the sea of Ochotsk.

68. *LARUS NIVEUS*, Pall.

Mr. Howard Saunders informs me that the Gulls from Japan attributed to this species by Swinhoe are undoubtedly *Larus canus*, Linn.

69. *LARUS MARINUS*, L.

Skins of this Gull collected by Capt. Blakiston in Japan have been carefully identified by Mr. Howard Saunders.

70. *LARUS TRIDACTYLUS*, L.

Skins of *Rissa tridactyla* (Linn.) from Japan have not yet found their way to this country.

71. *CHROICOCEPHALUS RIDIBUNDUS* (L.).

Mr. Howard Saunders gives Japan as a winter residence only of *Larus ridibundus*, Linn. (P. Z. S. 1878, p. 201). On the other hand, Capt. Blakiston's observations seem to prove that this bird is only a summer visitor to Yesso (Ibis, 1874, p. 165; and 1878, p. 217).

Larus leucopterus, Faber, must also be added to the Japanese list, on the authority of a skin collected by Capt. Blakiston and identified by Mr. Howard Saunders (P. Z. S. 1878, p. 166).

We must also include *Larus delawarensis*, Ord, on the authority of a skin in the collection of Mr. Howard Saunders, obtained by Mr. H. Whitey at Hakodate (P. Z. S. 1878, p. 177).

74. *FULMARUS GLACIALIS* (Linn.).

The skin sent (No. 2048) is the Pacific form of the Fulmar. It is said to be darker in colour than our bird, and to have somewhat slenderer bill and feet. It is the *Procellaria pacifica* of Audubon and the *Fulmarus pacificus* of Lawrence, but not the *F. rogersii* of Cassin. I have not had access to a sufficiently large series of either form to give any opinion as to its claim to specific or subspecific rank.

79. *CHARADRIUS FULVUS*, Gm.

There are several skins of the eastern Golden Plover in Swinhoe's collection from Japan. *C. virginicus* is a distinct species, a larger bird, and has not yet been found in Asia.

81. *ÆGIALITIS DUBIA* (Scop.).

The skin sent (No. 2252) is that of the European Little Winged Plover, probably the *Charadrius dubius* of Scopoli, and certainly the *Charadrius curonicus* of Gmelin.

83. *ÆGIALITIS RUFICAPILLA* (Temm.).

Two skins sent (Nos. 1738 and 1411) are too small for *Æ. geoffroyi* (Wagl.), and doubtless belong to the nearly allied species, *Æ. mongolica* (Pall.), of which *Æ. ruficapilla* (Temm.) is a synonym. The former is a male in breeding-plumage from Hakodate, and the latter a female in autumn plumage from South Yesso.

These species scarcely differ in colour, and very slightly in size. The best character by which they may be separated is the length of the convex portion at the end of the upper mandible, which in *Æ. geoffroyi* varies from .41 to .51 inch, whilst in *Æ. mongolica* it varies from .3 to .34. The other differences of measurement are scarcely so marked, and require to be carefully measured, whereas the difference in the shape of the bill is apparent at a glance. In the length of the wing from the carpal joint *Æ. geoffroyi* varies from 5.6 to 5.2, and *Æ. mongolicus* from 5.3 to 5 in. In length of culmen *Æ. geoffroyi* varies from 1.15 to 1.05, and *Æ. mongolica* from .9 to .7; and in length of tarsus *Æ. geoffroyi* varies from 1.5 to 1.35, and *Æ. mongolica* from 1.3 to 1.2.

Both Harting (Ibis, 1870, p. 379) and Onustalet (Ois. de la

Chine, p. 426) give Japan as a locality for *Æ. geoffroyi*; and in Dresser's collection there is a skin of *Æ. veredus* (Gould), obtained by Capt. Conrad at Saigon; so that both these birds must be added to the Japan list. *Æ. veredus* may at once be recognized by its smoke-gray axillaries, which in *Æ. mongolica* and *Æ. geoffroyi* are pure white.

87. STREPSILAS INTERPRES (L.).

The skin sent (No. 85), from the Yokohama market, is that of the common Turnstone in winter plumage.

88. HÆMATOPUS OSCULANS, Swinhoe.

The skin sent (No. 86), from the Yokohama market, is correctly identified. It differs from the common Oystercatcher in having a long bill (the culmen measures 3·4 in.), and in having the longest upper tail-coverts tipped with black.

98. TRINGA TENUIROSTRIS, Horsf.

This bird should stand as *T. crassirostris*, T. & S. (See Ibis, 1874, p. 147.)

102. TRINGA DAMACENSIS, Horsf.

A skin in the Swinhoe collection* (No. 1681), a female, apparently in first winter plumage, dated "South Yezo, Aug.," is quite distinct from *T. minuta*, Leisl. Although of the same size, the feet of the Japanese bird are much larger, the middle toe being longer by the whole length of the claw. In *T. minuta* the shafts of all the primaries are white; but in *T. damacensis* only the first shaft is whitish, the rest being brown. This bird should stand as *T. ruficollis*, Pallas.

108. SCOLOPAX RUSTICULA, L.

A skin of a male (No. 1178) in the Swinhoe collection, dated "Hakodate, April," agrees exactly with European examples.

109. GALLINAGO AUSTRALIS (Lath.).

A skin of a male (No. 1228) in the Swinhoe collection, dated "Hakodate, May," agrees with Australian examples. It is a much larger bird than *G. major* (Gm.), and has the

broad white feathers on each side of the tail replaced by narrow coloured feathers, almost as stiff as those of *G. stenura* (Kuhl).

110. GALLINAGO SCOLOPACINA, Bp.

Two skins (No. 1333 and 1335) in the Swinhoe collection, both dated "♂, May, Hakodate," agree exactly with European examples. Another skin (No. 1503), a female shot at Hakodate in September, was identified by Swinhoe (*Ibis*, 1875, p. 454) with the American species *G. wilsoni* (Temm.). On comparing it with skins of *G. scolopacina*, Bp., shot in Heligoland in November, I have little doubt that Capt. Blakiston is perfectly right in pronouncing the bird to be that species in autumn plumage. The axillaries of the Heligoland bird are barred quite as uniformly as those of the Japan skin.

120. PLATALEA MAJOR, T. & S.

121. PLATALEA MINOR, T. & S.

These two birds are now considered by Schlegel and others to be merely large and small examples of a species of Spoonbill very nearly allied to, but specifically differing from, the European bird.

126. ARDETTA, sp. inc.

The skin sent (No. 2042) appears to be an immature bird of *Ardetta sinensis* (Gm.).

128. EGRETTEA MODESTA, Gray.

The Great Egret of China and Japan is generally considered by ornithologists to be only a small race of our European *Herodias alba* (Linn.), scarcely deserving of specific rank.

129. EGRETTEA INTERMEDIA, Hasselq.

This bird, *Herodias intermedia* (Wagl.), appears to be a good species.

130. EGRETTEA GARZETTA (Linn.)?

The skin sent (No. 130) is that of the Little Egret, *Herodias garzetta* (Linn.).

133. *GRUS CINEREA*, Linn.

The Japanese bird is not usually considered specifically distinct from our Common Crane, which stands as *Grus communis*, Bechst.

137. *GRUS*, sp. inc.

The description given by Mr. Blakiston of this bird agrees best with *Grus antigone*, Linn.

150. *COTURNIX JAPONICA*, T. & S.

Ornithologists differ in opinion as to whether the Japan bird is specifically distinct from our common Quail. The only constant difference is said to be the dark throat. It may probably rank as a subspecies, with intermediate forms occurring in China.

156. *CUCULUS*, sp. inc. "Hototogisu."

The skin of a Cuckoo brought by Mr. Heywood Jones from the mountain of Fusi-yama, near Yokohama, and identified by Mr. Pryer as the "Hototogisu," appears to belong to *Cuculus poliocephalus*, Latham.

This bird is a miniature of our European Cuckoo, the wing from carpal joint measuring from 6 to 6½ inches. According to Jerdon, *C. himalayanus*, Gould, *C. bartletti*, Layard, *C. intermedius*, Vahl, *C. lineatus*, Lesson, and *C. tenuirostris*, Temm., are synonyms of this species, to which we must add *C. tamsuicus*, Swinhoe.

157. *CUCULUS*, sp. inc. "Juichi."

Two skins brought by Mr. Heywood Jones from the volcano near Yokohama are identified by Mr. Pryer as the "Juichi." The nearly even tail and the longitudinal streaks on the breast identify them as immature birds of some species of *Hierococcyx*. They further agree exactly with both the description and plate of *C. sparverioides*, Vig., of Schrenck's 'Vögel des Amurlandes' (p. 257, pl. x.). We may safely go one step further, and identify the Japan and Amoor birds with *C. hyperythrus*, Gould. According to Jerdon this bird should stand as *Hierococcyx fugax*, Horsf., of which *C. flaviventris*, Scop., *C. radiatus*, Gmel., and *C. pectoralis*, Cab., are additional synonyms.

159. *PICUS MAJOR*, L.

A skin brought from the neighbourhood of Yokohama by Mr. Heywood Jones agrees with European examples.

161. *PICUS KISUKI*, T. & S.

A skin brought by Mr. Heywood Jones agrees with Temminck and Schlegel's description.

PICUS MINOR, Linn.

The skin sent (No. 2346), from Yezo, is somewhat intermediate in colour and size between the large brilliant form of *P. minor* found in North Europe and Asia, and the small dingy race found in West and Southern Europe.

168. *HALCYON COROMANDELIANA* (Scop.).

The correct name of this Kingfisher is *Halcyon coromanda* (Bodd.). In Swinhoe's collection there is a skin of this bird collected by Mr. Blakiston at Hakodate, which is no doubt the skin referred to. *Ceryle rudis* must therefore be struck out of the list of Japan birds.

170. *ZOSTEROPS JAPONICA*, T. & S.

The skin sent (No. 171) is correctly identified.

172. *HIRUNDO GUTTURALIS*, Scop.

Dresser unites this bird with *H. rustica*, Linn., on the ground that intermediate forms occur. In Swinhoe's collection there is a fine series of twenty-six skins of *H. gutturalis* from Japan, Peking, Formosa, Amoy, Hongkong, and Hainan. In one skin from Amoy the pectoral band which separates the chestnut throat from the white belly is almost if not quite as dark as in European examples; but in most cases it is very narrow, and frequently only observable on the sides of the breast. In two skins from Amoy a broad black band crosses the longest under tail-coverts near their apex. Young birds, besides having the outside rectrices short, have less chestnut on the forehead and are much paler in colour on the throat. Adult birds dated February, March, May, July, November, and December show no seasonal variation of colour. Until the intermediate forms have died out, it will perhaps be best to consider the China and Japan

birds as *Hirundo rustica*, Linn., subspecies *gutturalis*, Scop. Such a form of nomenclature may be complicated, but it is not more complicated than the form which it attempts to discriminate. It would be a great pity if, in consequence of a too pedantic adherence to supposed simplicity of nomenclature, such an interesting local form as that under consideration should be ignored or forgotten for want of a name.

173. *CECROPIS JAPONICA*, T. & S.

The common Indian Red-rumped Swallow, doubtfully the *Hirundo daurica* of Linnæus, but certainly the *Hirundo erythropygia* of Sykes, is the eastern form of *H. rufula*, Temm. It differs from the latter bird in being more distinctly striped on the underparts, and in having the chestnut ring round the nape interrupted by the black of the head joining that of the back. The chestnut band across the rump varies in width from .6 to 1.2 in., and in colour from pale to deep chestnut, and has generally a striolated appearance owing to the feathers having dark shafts. The latter character, however, is often absent. These variations have given rise to several synonyms, *H. japonica*, Temm. et Schl., *H. arctivitta*, Swinh., &c. Swinhoe's collection contains a series of thirteen of these birds; but none of them are from Japan. My own opinion is that the variations alluded to are only such as arise from difference of age, sex, and season, and that none of them entitle their possessors to rank as subspecies or local forms.

The Swallow mentioned by Capt. Blakiston from Kamtchatka (Ibis, 1878, p. 386) is no doubt *H. americana*, Wilson, the oldest name of which bird is *H. horreorum*, Barton, as has already been pointed out by Swinhoe (Ibis, 1876, p. 331)*.

174. *COTYLE RIPARIA* (L.).

Four skins sent (Nos. 2501, 2502, 2503, & 2504) agree exactly with skins from Archangel, the Petchora, and the Yenesay. The primaries and the tail-feathers are perceptibly darker than in the British and South-European form. The

* [But if, as we believe to be the case, the N.- and S.-American Swallows are identical, *H. erythrogastra*, Bodd., is the oldest name for the species.—ED.]

difference, however, is not sufficient to found even a subspecies upon.

176. *CYPSELUS PACIFICUS* (Lath.).

The skin sent (No. 2188) is correctly identified.

181. *CORVUS CORAX*, L.

The skin sent (No. 2304), from Eturup, one of the Kurile Isles to the north of Japan, is quite as large as our Raven. It measures 17 inches in length of wing, and has quite as large a beak. I cannot detect any difference in the colour or degree of gloss of either the upper or under parts. It has, however, the wing-formula of a Crow, and not of a Raven. The first and second primaries are too short for those of the Raven. The skin is dated September; and the wings have not yet completed their full growth since the autumn moult, the first and second primaries in both wings being still "in the pen." The probability is that the skin is correctly named.

182. *CORVUS PASTINATOR*, Gould.

The skin sent (No. 2182) is correctly identified.

195. *LANIUS EXCUBITOR*, Vig.?

This bird will most likely prove to be *L. major*, Pall., a subspecies of *L. excubitor*.

197. *BUTALIS LATIROSTRIS* (Raffles).

The skin sent (No. 2407) is *Hemichelidon latirostris* (Raffles).

202. *PERICROCOTUS CINEREUS*, Lafr.

The skin sent (No. 2218) is correctly identified.

205. *PARUS ATER*, L.

The Japanese Cole Tit appears to be the same species as the European bird. One skin in the Swinhoe collection (No. 1152) has some of the occipital feathers longer than usual, and forms an intermediate link between *P. ater* and *P. pekinensis*. The latter bird was described by David in 'The Ibis' (1870, p. 155); and a skin collected by him is in the Swinhoe collection. At best it can only rank as a subspecies, and that a somewhat doubtful one. Two skins in the Swinhoe collection from the Ussuri river, and one col-

lected by Schrenk also in the valley of the Amoor, agree with European skins, whilst a second skin from the Amoor has some of the occipital feathers as much developed as in the intermediate forms previously mentioned from Japan. Other skins from Japan, as well as a skin which I procured at Yen-e-saisk, in Central Siberia, cannot be distinguished from European skins.

206. *PARUS BOREALIS*, Selys.

I have lately received a fine series of Marsh-Tits from Kras-no-yarsk, in Central Siberia. I had already a good series of these birds, and have now had an opportunity of comparing them with the skins in Dresser's collection and in the Swinhoe collection. The whole series comprises skins from England to Japan. English skins are the brownest. Skins of *P. palustris*, Linn., from Italy and Asia Minor are a shade paler, and cannot be distinguished from Chinese skins. Two skins from Japan are decidedly greyer, and form an intermediate link between *P. palustris* and *P. borealis* from Norway. Skins from Archangel are slightly greyer still, but not so grey as skins from the Petchora, the Ob, and the Yenesay, whilst the greyest skins of all are those from Kras-no-yarsk and Lake Baical. The black of the head extends lowest down the back in grey skins from Siberia, and in intermediate skins from Japan; it is less developed in greyish skins from Archangel, and least so in greyish skins from Norway and brown skins from Europe and China.

The conclusion I come to is that there is only one species of Marsh-Tit, which may be split up into an indefinite number of ill-defined subspecies, of which the following may be most worthy of record:—

P. palustris. Back brown. Black of head extending to the nape.

P. palustris, subspecies *borealis*. Back grey. Black of head extending to the nape.

P. palustris, subspecies *japonicus*. Back greyish brown. Black of head extending onto the upper back.

P. palustris, subspecies *camtschatkensis*. Back pale slate-grey. Black of head extending onto the upper back.

207. *PARUS MINOR*, T. & S.

A skin (No. 1119) in the Swinhoe collection from Hakodate agrees with the plate in the 'Fauna Japonica,' and with skins from China in the same collection. This is a very good species, and differs from skins of *P. major*, Linn., in my collection from Heligoland, Asia Minor, and Krasnoyarsk in Siberia, in being somewhat smaller in size, and in having the greenish yellow of the underparts replaced by buffish white.

208. *PARUS VARIUS*, T. & S.

A skin in the Swinhoe collection (No. 1195) labelled "♂, Hakodate, April," agrees with the plate in the 'Fauna Japonica.'

Since the article on the birds of Japan was published I have received a skin of an *Ægithalus* from Capt. Blakiston (No. 2545), labelled "♂, Nagasaki, Japan, Feb." This bird is *Æ. consobrinus*, Swinhoe (P. Z. S. 1870, p. 133). It agrees exactly with the type in the Swinhoe collection from China. *Ægithalus pendulinus* (Linn.) seems to be subject to as much variation as his cousins just spoken of; Severtzoff described four supposed new species from Turkestan, but he afterwards reduced them to two. It is impossible to form any opinion as to the probability of any of these forms being entitled to rank as subspecies. In the absence of any evidence to the contrary, I am inclined to pronounce the skin from Japan and Swinhoe's type of *Æ. consobrinus* to be females, or not fully adult males, of *Æ. pendulinus*. They are scarcely to be distinguished from a skin of a female in my collection from Asia Minor, and another from Piedmont in Dresser's collection. Capt. Blakiston writes, "I found three specimens among some skins sent me by Mr. F. Ringer, of Nagasaki. Two I retain, one a male identical with that sent you now, and the other a female, which differs in wanting the black line through the eye, and chestnut collar on the hind neck. The head is dull brown instead of ash; and altogether the plumage is less brilliant." This description I take to be that of a bird of the year. It agrees very

closely with the figure of the young of *Æ. pendulinus* in Dresser's 'Birds of Europe.'

211. *SITTA EUROPÆA*, L.

A skin (No. 1153) from Hakodate agrees exactly with skins from the Yen-e-say, having the underparts almost pure white. It is the *Sitta uralensis*, Licht., of some authors; but the difference is not sufficient to entitle it to more than subspecific rank.

213. *ACCENTOR*, sp. inc.

Probably *A. erythropygius*, Swinh., figured in the P. Z. S. 1870, p. 124, pl. ix.

214. *PIPASTES AGILIS*, Sykes.

Pipits from Japan are not uncommon in collections. I have never seen more than one species of Tree-Pipit from these islands, *Anthus maculatus*, Hodgson. This is no doubt the species intended to be identified by Swinhoe as *P. agilis*. This latter name has lately been proved to be a synonym of our European bird, *A. trivialis*, Linn. ('Stray Feathers,' iv. p. 278).

215. *ANTHUS JAPONICUS*, T. & S.

In Swinhoe's collection there are three skins of this species—two from Ningpo in China, and one from Yesso (Blakiston, No. 1566). These skins agree with the description and plate in the 'Fauna Japonica,' and with the type in the Leyden Museum, and are in my opinion *Anthus ludovicianus*, Gm. This bird is common in Alaska; and I have a skin in my collection collected by Wosnessensky on Urup, one of the Kurile Islands between Yesso and Kamtchatka.

216. *ANTHUS*, sp. inc.

The skin sent (No. 2056) is an undoubted specimen of *A. cervinus*, Pall.

217. *MOTACILLA JAPONICA*, Swinh.

In my paper on the ornithology of Siberia in 'The Ibis' (1877, p. 346), I have endeavoured to show that there are two species of White Wagtail in Japan—*M. lugens*, T. & S., and a second species to which I have given the name of *M. amurensis*.

218. MOTACILLA MELANOPE, Pall.

This is the common Grey Wagtail of Europe (*Motacilla boarula* auctorum, nec Scopoli).

219. CALAMODYTA MAACKI, Schrenck. }

222. HERBIVOX CANTILLANS ?, T. & S. }

The two skins sent are *Acrocephalus bistrigiceps*, Swinh. (Ibis, 1860, p. 51, Jan.)—a name which takes precedence, though only by five months, of *Salicaria* (*Calamodyta*) *maacki*, Schrenck (Reis. u. Forsch. im Amurlande, i. p. 370, 1860, June).

220. CALAMODYTA INSULARIS, Wall.

Correctly identified by Swinhoe, who described this species as *Calamoherpe fumigata*. I have endeavoured to prove (see above, p. 15) that both these names must give way to *Acrocephalus fasciolatus*, Gray; and in 'The Ibis' for 1878, p. 490, I have pointed out that this bird is a *Locustella*, and must stand as *Locustella fasciolata* (Gray).

223. HERBIVOX CANTANS, T. & S.

After carefully examining the series of types of *Salicaria cantans* and *S. cantillans* in the Leyden Museum, I have no hesitation in referring them to one species. The larger birds are principally males, and the smaller ones females. They vary in length of wing from 2·2 inches to 2·7. The name *cantillans* must therefore sink into a synonym of *cantans*.

This species is very nearly allied to *Arundinax canturiens*, Swinh., but differs from the Chinese bird in being more olive in colour. In 1871 (P. Z. S. p. 353) Swinhoe removed these birds from the genus *Arundinax*, and placed them in a new genus *Herbivox*. In this, however, he was forestalled by Salvadori, who in the previous year (Atti R. Acc. d. Sc. di Tor. v. p. 510) had established the genus *Homochlamys* for their reception. It is somewhat remarkable that neither of these authors mentions, as a character of his new genus, the important fact that these birds have only ten instead of twelve tail-feathers. Both these generic terms will, however, in all probability have to be consigned to the limbo of synonyms.

The genus *Cettia* of Bonaparte (1838), of which *C. sericea* is the type, appears to me to be capable of embracing a small group of about a dozen species distinguished by having only ten tail-feathers. They have moderately slender bills with feeble rictal bristles, very rounded wings, the first primary being more than half the length of the second, and a moderately rounded tail, the outside feathers being generally three fourths the length of the longest. The tarsus and feet are robust, the former indistinctly scutellated in front. This genus might contain *Cettia sericea*, Bon., *C. canturiens* (Swinh.), *C. cantans* (T. & S.), *C. minuta* (Swinh.), *C. rodericana* (Newt.), *C. brunneifrons* (Hodgs.), *C. major* (Hodgs.), *C. flavolivacea* (Hodgs.), *C. pallidipes* (Blanf.), *C. assimilis* (Gray), *C. fortipes* (Hodgs.), and *C. pallida* (Brooks); but I think that the three latter names will be found to be synonyms, *C. fortipes* (Hodgs.) being the oldest. All the birds in this genus are more or less remarkable for having the feathers of the rump much developed.

224. ARUNDINAX BLAKISTONI, T.

228. LOCUSTELLA SUBCERTHIOLA, Swinh. }

I think there can be no doubt that the former of these birds is the young in first winter plumage, and the latter the adult of *Locustella ochotensis*, Middendorf.

225. PHYLLOPNEUSTE CORONATA, T. & S.

226. PHYLLOPNEUSTE XANTHODRYAS, Swinh.

In Mr. Dresser's and Lord Tweeddale's collections are skins of *Phylloscopus borealis* (Blasius) from Japan. In the British Museum is a skin of *P. xanthodryas*, Swinh., obtained by Capt. St. John at Hakodate; and in Lord Tweeddale's collection is a skin of *P. tenellipes*, Swinhoe, labelled "Hakodate, 5th May, 1865." Skins of *P. coronatus*, T. & S., from Japan are not uncommon in collections.

229. LOCUSTELLA, sp. inc.

This will probably prove to be *Locustella hendersoni* (Cassin), originally described from a skin obtained at Hakodate. From the description of this bird it appears to be the same as *Locustella minuta*, Swinhoe, an intermediate form

between *L. macropus*, Swinhoe, and *L. lanceolata* (Temm.). Probably all four names will hereafter be proved to be synonymous. The only difference appears to be in the amount of striation on the underparts; and this is a character which in the not very distantly allied *Acrocephalus aquaticus* (Gm.) is subject to great variation.

230. *LOCUSTELLA BRUNNEICEPS* (Temm.).

The skin sent (No. 2240) does not appear to differ from our European *Cisticola schænicola*, Bonap., or, as I suppose by law of priority it must now stand, *C. cursitans* (Frankl.).

231. *TROGLODYTES FUMIGATUS*, T. & S.

A skin of this species collected near Yokohama by Mr. Haywood Jones is a trifle darker in colour and somewhat more distinctly barred on the back than a skin from Hakodate in the British Museum; but the difference is scarcely sufficient to establish even a subspecies upon it.

The Japanese form of the Wren is intermediate between *T. nipalensis* from Cashmere, Simla, and Nepal, and *T. hiemalis* from Toronto and Vancouver's Island. The general colour both above and below is lighter, redder, less grey than in the former species; and more distinctly barred, especially on the back, and much darker-coloured on the throat and breast than in the latter species.

232. *REGULUS JAPONICUS*, Bp.

The skin sent (No. 234) is referable to the above species. It is decidedly greyer on the hind neck than our bird is; nevertheless it is not recognized by Mr. Dresser in the 'Birds of Europe' as distinct from *Regulus cristatus*, Koch. It is a fairly good subspecies.

243. *TURDUS SIBIRICUS*, Pall. }

250. *TURDUS*, sp. inc. }

This latter bird is undoubtedly an adult male of *Turdus sibiricus*, Pall.

244. *TURDUS PALLIDUS*, Gmel.

The skins sent (No. 247) belong to the true *T. pallidus* of Gmelin, without a white eye-stripe and with the white on the

outside tail-feathers largely developed. The bird with the dark throat I take to be fully adult. The white throat I take to be a sign of immaturity, as it is frequently accompanied by pale tips to the wing-coverts and the rudiments of an eye-stripe. This Thrush is the *T. daulias* of the 'Fauna Japonica.'

247. *TURDUS OBSCURUS*, Gmel.

It is very curious that this Thrush, figured and described in the 'Fauna Japonica' as *T. pallens*, Pall., should never have been recorded from Japan by any of our English collectors. In Siberia I found it the easiest species of Thrush to shoot, much less wild and shy than its congeners. Probably it may be only an accidental visitor to Japan; or possibly the example described by Temminck and Schlegel may have been a cage-bird.

254. *EMBERIZA CIOPSIS*, Bp.

This Bunting is the *E. cioides* of the 'Fauna Japonica;' but that name, having been previously applied to a nearly allied species by Brandt, is superseded by *E. ciopsis* of Bonaparte. The two species are quite distinct, though Swinhoe unites them in his catalogue of the birds of China (P. Z. S. 1871, p. 388). Among the Japanese skins brought over by Mr. Heyward Jones is a pair of *E. ciopsis*, which I have compared with a fine series of *E. cioides* just received from Kras-no-yarsk in Central Siberia. The Japanese bird has black cheeks, and a pale chestnut breast, scarcely darker than the belly; whereas the Siberian bird has very dark chestnut cheeks, and a gorget of dark chestnut across the breast, in strong contrast to the paler belly.

A third form of these very nearly allied species is to be found in *Emberiza cioides*, Brandt, subsp. *gigliolii* of Swinhoe. It is a small form of *E. cioides* which is found in China. A series of thirteen males of *E. cioides* from the Yen-e-say vary in length of wing from 3.5 to 3.05, whilst a series of ten males of *E. gigliolii* from China vary from 3.08 to 2.8. The females present an equal variation in size. Four females from the Yenesay vary in length of wing from 3.14 to 2.95, whilst seven females from China vary from 2.85 to 2.66.



JGKeulemans lith.

Hannart imp.

1 EMBERIZA PASSERINA
2 " YESSOENSIS

EMBERIZA YESSOENSIS. (Plate I. fig. 2.)

"*Schœnicola yessoensis*, Swinh." Blak. et Pryer, Ibis, 1878, p. 243. no. 263.

This Bunting (of which I give a figure of an adult male shot at Hakodate in April) appears to be an excellent species. It was first described by Capt. Blakiston in 'The Ibis' (1863, p. 99) as "*Emberiza minor*, Midd. apud Swinhoe." In 'The Ibis' for 1874, p. 161, Swinhoe corrected the error which he had induced Capt. Blakiston to make, and attempted to do tardy justice to the discoverer and describer of this new species by assigning to it the name *Schœnicola yessoensis* originally given in Blakiston's MS. In all fairness this species ought to stand as *Emberiza yessoensis* (Blakiston). I have consulted divers ornithological experts, "learned in the law," and I am most reluctantly compelled to indorse their decision that, inasmuch as Swinhoe was the first person who published the name *yessoensis*, this bird must stand as *Emberiza yessoensis* (Swinhoe).

Upon the same plate is figured, under the name *Emberiza passerina*, an adult male of the true *Emberiza minor*. I shot the bird from which this figure was drawn in the valley of the Yen-e-say, in East Siberia, in lat. $66\frac{1}{2}^{\circ}$, on the 9th of June, 1877. In 'The Ibis' for 1878, p. 339, I have given particulars of its capture under the name of *E. polaris*, Midd. Since writing that account I have had leisure to work out the subject further, and now add a full synonymy of the species as far as I have been able to ascertain it.

EMBERIZA PASSERINA. (Plate I. fig. 1.)

Emberiza passerina, Pallas, Itin. i. app. p. 456. no. 10; Zoogr. Rosso-As. ii. p. 49 (1811).

Emberiza schœniclus, var. β , Pall. Zoogr. Rosso-As. i. p. 48 (1811).

Cynchramus pallasi, Cab. et Heine, Mus. Hein. i. p. 130 (1850).

Emberiza schœniclus, var. *minor*, Midd. Sib. Reise, ii. p. 144 (1851).

Emberiza polaris, Midd. Sib. Reise, ii. p. 146 (1851).

Emberiza canescens, Swinhoe, Ibis, 1860, p. 62.

Emberiza alleonis, J. Vian, Rev. et Mag. de Zool. 1869, p. 97.

264. SCHÆNICOLA PYRRHULINA, Swinhoe.

Two skins sent (Nos. 1835 and 2246) are respectively an adult male in breeding-plumage and an example in winter plumage of *Emberiza schæniclus*, Linn., subspecies *palustris*, Savi. This form of the common European black-headed Reed-Bunting is the *Emberiza palustris* of Savi, the *E. intermedia* of Michahelles apud Bonaparte, and the *Schænicola pyrrhulina* of Swinhoe. It differs from the normal form of *E. schæniclus*, Linn., solely in having a thicker bill. The following table of measurements of the height of the bill will show how impossible it is to draw a line between the two alleged species.

	inch.		inch.
2 skins from Spain	·2	6 skins from Asia Minor	·21
1 " " England	·2	1 " " Yenesay	·21
1 " " Heligoland	·2	1 " " Malta	·22
4 " " Norway	·2	1 " " Spain	·23
2 " " Petchora	·2	1 " " Japan	·23
1 " " Ural	·2	2 " " Japan	·24
8 " " Asia Minor	·2	1 " " Asia Minor	·25
6 " " Yenesay	·2	1 " " Spain	·2
2 " " Spain	·21	1 " " Italy	·25
1 " " Norway	·21	2 " " Italy	·3
1 " " Holland	·21	1 " " Italy	·31
4 " " Petchora	·21	1 " " Sicily	·31

In the basin of the Caspian at Astrakan, in Turkestan, &c. a nearly allied form occurs, which probably may claim specific rank, *Emberiza pyrrhuloides*, Pall. This is a larger bird, measuring 3·5 to 3·25 in length of wing, and ·35 to ·3 in height of bill. The upper parts are paler in colour, especially the central rectrices and the edges of the wings and wing-coverts. The rump and upper tail-coverts are also much paler in colour, and without the dark streaks in the centre of each feather.

The peculiarity of the geographical distribution of these birds is that *E. schæniclus* extends eastwards only as far as the valley of the Yenesay, where a smaller and grey-shouldered

species appears, *E. passerina*, Pall., and extends eastwards into the valley of the Lena and into China. Still further east, in Japan, *E. schœniclus*, subsp. *palustris*, reappears.

285. *SYRNIUM RUFESCENS*, Temm.

The skin sent (No. 2118) from Hakodate is a male of *Syrnium uralense*, subspecies *fuscescens*, the *Strix rufescens* of Temm. & Schlegel's text, but named *Strix fuscescens* on their plate. This skin is interesting, as showing that this subspecies has a grey phase of plumage. Mr. Gurney informs me that the Norwich Museum possesses two skins from Japan in the more rufous phase figured in the 'Fauna Japonica.'

286. *ASIO ACCIPITRINUS* (Pall.).

The skin sent (No. 1521) is that of the common Short-eared Owl of North Europe and North Asia, the *Otus brachyotus* of many ornithologists.

287. *ASIO OTUS* (L.).

The skin sent (No. 2203) is correctly identified.

296. *SPIZAETUS ORIENTALIS*, T. & S.

The figure of this bird in the 'Fauna Japonica' is considered by both Sharpe and Gurney to represent a not fully adult *Spizaetus nipalensis* (Hodgs.). Mr. Gurney tells me that there is some doubt as to the locality of the skin of this bird in the Norwich Museum, supposed to have come from Japan. It is a matter of importance that skins of fully adult Japanese birds should be sent to this country, so that the identity of the species with the Indian bird may be placed beyond a doubt.

298. *BUTEO JAPONICUS*, T. & S.

299. *BUTEO*, sp. inc.

Sharpe, in his 'Catalogue of Birds,' considers the Japanese Buzzard to be the not quite mature *Buteo plumipes*, Hodgs.; but Mr. Gurney, in his notes in 'The Ibis' (1876, p. 369), hesitates to confirm this identification. Mr. Gurney assures me that the pale form of the immature bird figured in the 'Fauna Japonica' is merely a less rufous phase of plumage, and that the Norwich Museum possesses similar forms from China.

300. BUTEO HEMILASIUS, T. & S.

This is a good species, and quite distinct from *Archibuteo aquilinus* of Hodgson. The type of Hodgson's species is in the British Museum, and has been described and figured in Sharpe's 'Catalogue of Birds' (i. p. 178, pl. 8) as a very old example of *Buteo ferox*.

301. POLIORNIS POLIOGENYS, T. & S.

The skin sent (No. 2213) is a specimen of *Butastur indicus* (Gmel. ex Lath.), of which *Buteo pyrrhogenys*, T. & S., is a synonym, as is also *Falco poliogenys*, Temm.

302. PERNIS APIVORUS (L.).

This bird was incorrectly identified by Temminck and Schlegel with the European Honey-Buzzard. The Japanese bird should stand as *Pernis ptilorhynchus* (Temm.).

303. ASTUR PALUMBARIUS (L.).

The skin sent (No. 1882) is a female of this species, no doubt a bird of the year.

304. ACCIPITER NISUS (L.).

Authentic specimens of this bird from Japan are in the collections of Lord Tweeddale and of Messrs. Salvin & Godman (see Dresser's 'Birds of Europe,' pt. ix.).

305. ACCIPITER GULARIS, T. & S.

The skin sent (No. 2070) is a young male. Sharpe, in his 'Cat. B. Brit. Mus.' i. p. 150, makes the Japanese bird a large form of *A. virgatus*, Temm.; and Gurney (Ibis, 1875, p. 480), whilst pointing out the difference between the two forms, hesitates to pronounce them specifically distinct. The Japanese seems to be a fairly good subspecies.

306. TINNUNCULUS JAPONICUS, T. & S.

The skin sent (No. 2210) is darker in colour than the European form of the Kestrel. Temminck and Schlegel only admit the Japanese bird to subspecific rank; and in this opinion both Sharpe and Dresser concur. It must therefore stand as *Cerchneis tinnunculus*, subspecies *japonicus*.

307. HYPOTRIORCHIS SUBBUTEO, L.

The skin sent (No. 1520) is a male of our Hobby in fully

adult plumage, the streaks on the thighs characteristic of immaturity having disappeared.

308. *HYPOTRIORCHIS ÆSALON*, L.

There are skins of both adult and young of *Falco æsalon*, Linn., in the British Museum collected by Mr. Pryer in Japan.

309. *HYPOTRIORCHIS AMURENSIS*.

There is no reason to doubt the correctness of this identification. The name should stand *Cerchneis amurensis* (Radde).

310. *FALCO PEREGRINUS*, Tunst.

There are skins of *Falco peregrinus*, from Hakodate, both in the Norwich and the British Museums.

III.—*Field-notes on the Birds of Celebes*. By A. B. MEYER, M.D., C.M.Z.S., Director of the Royal Zoological Museum, Dresden. Part I. PSITTACI, RAPACES, and PICARIÆ.

THE following notes were written nearly as they are during my stay on the island of Celebes from December 1870 till November 1871 (and again for a short time in 1873). I then visited the northern peninsula (the so-called Minahassa), a part of the countries round the Gulf of Tomini, including the Togian Islands within this gulf, the Sangi Islands to the north of the Minahassa, and the south-western peninsula, the chief place of which is the well-known town of Makassar. The birds collected by myself were obtained in the months from December to June in the Minahassa, from July to September in the countries round the Gulf of Tomini, and in October, November, and January in the south. It is known that the Marquis of Tweeddale (then Viscount Walden) had my collections at his disposal when he published his list of the birds of Celebes (Trans. Z. S. viii. p. 23); and I shall treat the species on which I have any thing to say in the order in which they are enumerated in that memoir, and with the same nomenclature. I regret that the exact localities where I got my specimens were often destroyed, and the exact dates when